

REMARKS

Applicant appreciates the Examiner's thorough consideration provided the present application. Claims 1-12 are now present in the application. Claims 1 and 7 have been amended. Claims 1 and 7 are independent. Reconsideration of this application, as amended, is respectfully requested.

Claim Rejections Under 35 U.S.C. §112

Claim 7 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. This rejection is respectfully traversed.

In view of the foregoing amendments, it is respectfully submitted that this rejection has been addressed. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, first paragraph, are therefore respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang, U.S. Patent No. 6,135,838, in view of the article "Titanium dioxide photocatalysis", Taoda, U.S. Patent No. 5,670,206, and Yamada, U.S. Patent No. 5,897,958. Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Wang in view of the article "Titanium dioxide photocatalysis", Taoda and Yamada, and further in view of Ichikawa, U.S. Patent No. 6,024,929. These rejections are respectfully traversed.

In light of the foregoing amendments, Applicant respectfully submits that these rejections have been obviated and/or rendered moot. As the Examiner will note, independent claims 1 and

7 have been amended to recite a combination of steps including “formulating a photocatalyst anatase TiO₂ sol mixture and dip coating a glass fiber cloth or glass fiber sleeve with said photocatalyst anatase TiO₂ sol mixture, wherein the photocatalyst anatase TiO₂ sol mixture comprises nano crystalline of Anatase TiO₂ particles” and “drying said photocatalyst sol coated glass fiber cloth or glass fiber sleeve into a nano-crystalline-photocatalyst-coated glass fiber cloth or glass fiber sleeve in 100-250°C.” Applicant respectfully submits that the above combination of steps as set forth in amended independent claims 1 and 7 is not disclosed nor suggested by the references relied on by the Examiner.

The claimed invention is directed to a process for preparing nano crystalline photocatalyst anatase TiO₂, and the nano-sized photocatalyst can be excited by UV or visible light to produce photocatalytic interaction. Therefore, the nano crystalline of Anatase TiO₂ particles will directly combine on the glass fiber cloth or glass fiber sleeve by a low temperature (100-250°C) drying step. In other words, the Anatase TiO₂ particles are nano-sized both in the sol gel mixture and on the glass fiber, and the traditional high temperature baking (sintering) procedure for manufacturing TiO₂ particles in small-sized is not necessary. In addition, as disclosed in the specification on page 6, lines 10-17, *the disadvantages in a high temperature baking procedure is solved by the low temperature process of the claimed invention.*

The Examiner seemed to acknowledge that Wang fails to teach a sol gel with nano crystalline of Anatase TiO₂ particles. However, the Examiner alleged that Yamada discloses a sol gel with nano crystalline of Anatase TiO₂ particles. Applicant respectfully disagrees.

In particular, Yamada in col. 9, line 67 and col. 10, lines 1-2 discloses “when a film is formed from this sol, the average particle size*in this film* is from 20-30 nm.” In other words,

Yamada simply discloses a particle size *in the film* (not in the sol gel). Furthermore, in Yamada, *a high temperature sintering process (about 500°C) for forming the nano-sized particles is necessary*. Accordingly, Yamada simply discloses the nano-sized particles in the film after sintering process, but fails to disclose the nano-crystalline Anatase particles in the sol gel mixture and the low temperature drying step as recited in claims 1 and 7.

With regard to the Examiner's reliance on the other secondary references, these references also fail to disclose the above combination of steps as set forth in amended independent claims 1 and 7. Accordingly, these references fail to cure the deficiencies of Wang and Yamada.

Accordingly, none of the references utilized by the Examiner individually or in combination teach or suggest the limitations of amended independent claims 1 and 7 or their dependent claims. Therefore, Applicant respectfully submits that all of the claims clearly define over the teachings of the references relied on by the Examiner.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

CONCLUSION

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Cheng-Kang Hsu (Greg), Registration No. 61,007 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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